

AMENDMENT TO THE DRAWINGS:

The attached drawing sheet, sheet 1/16, includes changes to Fig. 1. This sheet, which includes Fig. 1, replaces the original sheet, sheet 1/16 including Fig. 1. This sheet now shows parallel and perpendicular magnetic fields on the target and the rim.

Attachment: Replacement Sheet
Annotated Sheet

REMARKS/ARGUMENTS

Applicants would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action. Favorable reconsideration of the subject application is requested in view of the comments made herein.

By the present amendment, claims 17-31 have been cancelled. Claims 35-48 have been added. Figure 1 of the drawings has been amended. No new matter is believed entered.

Claim 35 states “said device for producing the magnetic field comprising at least two magnet systems with oppositely oriented poles.” Support for the amendment may be found at least in FIG. 1, in which two magnet systems 9, 10 are positioned behind a target 6. As described on page 7 of the specification, “the two coils are connected to the line devices so that the currents flowing through the two coils run in opposite directions electronically.” Having the currents in the two coils run in opposite directions has the effect of making the poles oppositely oriented. Moreover, as described in the final paragraph on page 4 of the specification, a second coil is placed behind the first magnet system. The second magnet system is “oriented against the effect of the first magnet system” and “the opposite parallel components of the two magnet systems, depending on their distance from the target, cancel each other out in part or in full.”

Moreover, one skilled in the art would understand the phrase on page 3 “...that includes at least two magnet systems with opposite poles” and “...at least two oppositely poled magnet systems” to mean “oppositely oriented.” Lastly, applicants point to the phrase on the bottom of page 8, stating “magnets with an identical pole orientation are placed on the back of the target near the rim, and one or more magnets with opposite poles stands opposite them in the center of the target...” Here, identical pole orientation is put in relation to opposite poles, i.e., opposite pole orientation, as would be known by one skilled in the art. Therefore, no new matter is believed entered with respect to claim 35.

The drawings were objected to under 37 CFR 1.83(a). A corrected drawing sheet showing the parallel and perpendicular magnetic fields is included. In addition, the Examiner objected to the drawings for allegedly lacking English text. Applicant respectfully points out that a preliminary amendment was submitted on December 21, 2005 containing amended drawing sheets with English text.

Claims 1-7, 15, and 33-34 were rejected under 35 U.S.C. § 102(e) as being anticipated by Larrinaga (U.S. Pub. No. 2004/0112736), equivalent to Goikoetxea et al. (WO 02/077318). This rejection is respectfully traversed.

Larrinaga does not teach a “device for producing the magnetic field comprising at least two magnet systems with opposite poles.” In distinction, Larrinaga teaches a group of permanent magnets (3) and a second magnetic system constituted by a single electromagnet (4-5) located behind a target. As shown in FIG. 1, the alleged magnet systems are arranged in proximity to the target (2). The permanent magnets (3) are arranged on the periphery of the evaporator while the second magnetic system, single electromagnet (4-5), is located to the rear of the target. As is clearly shown, the magnet systems (3, 5) have the same orientation with the north and south poles facing in the same direction. Both the north poles of the magnet systems (3, 5) are oriented in the same direction, towards the substrate (10). Thus, the poles do not have “opposite poles,” as claimed. Furthermore, the fact that each magnet system (3, 5) has two poles, both north and south, has no bearing on the magnet systems having opposite poles. Every magnet system has two opposite poles, a north and a south. Therefore, one skilled in the art would not understand “opposite poles” to refer to the two poles of the same magnet. For at least these reasons, applicant respectfully requests withdrawal of the corresponding rejection of independent claim 1.

Dependent claim 8 was rejected under 35 U.S.C. § 102(e) as being anticipated by Larrinaga. This rejection is respectfully traversed.

The Examiner alleges on page 4 of the Office action that Larrinaga teaches a combination of electromagnet and permanent magnets placed behind the target (2). Applicant respectfully disagrees. In distinction, Larrinaga calls for permanent magnets (3) to be positioned at the periphery of the target (2). The permanent magnets (3) are consistently positioned outside of the body (6) and not behind the target (2). The permanent magnets (3) are “located in such a way that the centre line thereof coincides with the middle plane defined between the initial surface of target (2).” See Page 3, paragraph [0030]. Consequently, as seen in FIGS. 1 and 3-7, the permanent magnets (3) are always placed “on the periphery of the evaporator and so that their magnetization is perpendicular to the surface of the target.” See Page 2, paragraph [0026]. Therefore, Larrinaga does not teach “one or more permanent magnets placed behind the target.”

For at least these reasons, applicant respectfully requests withdrawal of the corresponding rejection of dependent claim 8.

Claim 35 has been added. Claim 35 states “said device for producing the magnetic field comprising at least two magnet systems with oppositely oriented poles.” None of the references disclose such structure.

As described above with respect to claim 1, Larrinaga teaches a group of permanent magnets (3) and a second magnetic system (4-5) located behind a target. As shown, the magnet systems (3, 5) have the same orientation with the north and south poles facing in the same direction. That is, the north poles all face in the same direction by being oriented towards the substrate (10). Therefore, the magnet systems do not have “oppositely oriented poles” as claimed. Thus, claim 35 is believed to be in condition for allowance. Claims 36-48 depend from independent claim 1 that is believed to be in condition for allowance as set forth above. As such, claims 36-48 are believed to be in condition for allowance.

Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Larrinaga in view of Kadlec et al. (U.S. Patent No. 5,234,560). The rejection is considered moot with respect to claim 11 because it depends from independent claim 1 that is believed to be in condition for allowance as set forth above.

Claims 12-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Larrinaga in view of Ramalingam (U.S. Patent No. 5,298,136). The rejection is considered moot with respect to claims 12-14 because they depend from independent claim 1 that is believed to be in condition for allowance as set forth above.

Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Larrinaga in view of Struempfel et al. (U.S. Patent No. 6,361,668). The rejection is considered moot with respect to claim 16 because it depends from independent claim 1 that is believed to be in condition for allowance as set forth above.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any fees resulting from this communication, please charge same to our
Deposit Account No. 16-0820, our Order No. UNAX1-38300.

Respectfully submitted,
PEARNE & GORDON LLP

By: /michaelwgarvey/
Michael W. Garvey, Reg. No. 35878

Pearne & Gordon LLP
1801 East 9th Street
Ste. 1200
Cleveland, Ohio 44114-3108
216-579-1700

Date: April 19, 2010